Internal CPU/IF

Photon Counting Head H7467 Series

The H7467 series are photon counting head designed for photon counting by simply connecting to a PC (personal computer). The H7467 houses a metal package photomultiplier tube, high-voltage power supply circuit, photon counting circuit, 20-bit counter and microprocessor in a compact package. Data transfer, measurement time and other necessary adjustments are controlled by commands from the PC through the RS-232C interface. The photon counting circuit discrimination level and the high voltage supply for photomultiplier tube are preadjusted to optimum levels prior to shipment so that the H7467 can be easily operated by simply supplying +5 V.

Product Variations

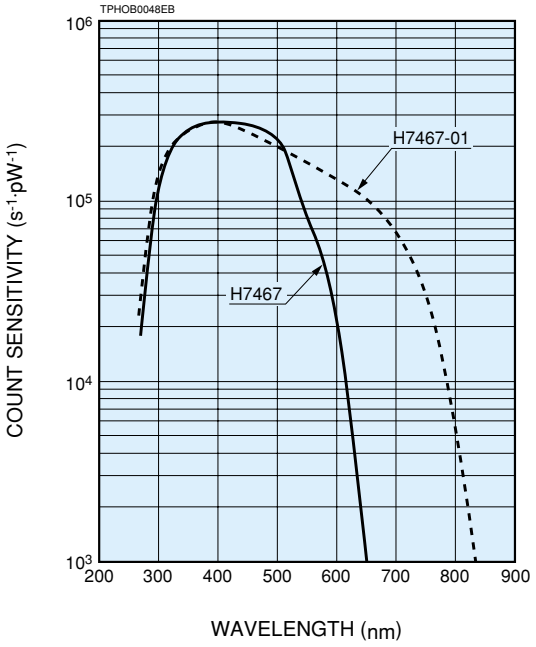
Type No.	Spectral Response	Features
H7467	300 nm to 650 nm	For visible range
H7467-01	300 nm to 850 nm	For visible to near IR range

Specifications

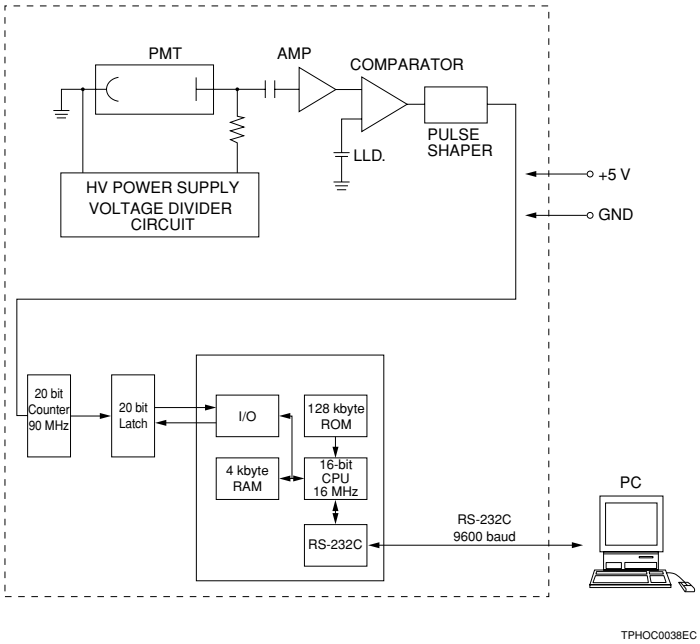
Parameter		H7467	H7467-01	Unit
Input Voltage		+4.5 to +5.5		V
Max. Input Voltage		6		V
Max. Input Current		180		mA
Effective Area		ϕ8		mm
Peak Sensitivity Wavelength		420		nm
Count Sensitivity	300 nm	1.2×10^5	1.2×10^5	$s^{-1} \cdot pW^{-1}$
	400 nm	2.7×10^5	2.7×10^5	
	500 nm	2.2×10^5	2.0×10^5	
	600 nm	2.1×10^4	1.4×10^5	
	700 nm	—	6.7×10^4	
Count Linearity *1		1.5×10^6		s^{-1}
Dark Count *2	Typ.	100	600	s^{-1}
	Max.	500	1000	
Pulse-pair Resolution		70		ns
Interface		RS-232C, 9600 baud, Parity none, 8 data bit, 1 stop bit		—
Gate Time		10 to 10 000 (10 Step)		ms
Operating Ambient Temperature		+5 to +40		°C
Storage Temperature		-20 to +50		°C
Weight		120		g

*1: Random pulse, at 10 % count loss
*2: After 30 minutes storage in darkness

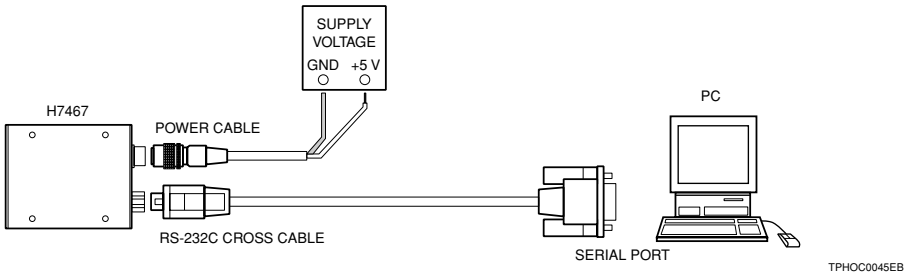
Characteristic (Count sensitivity)



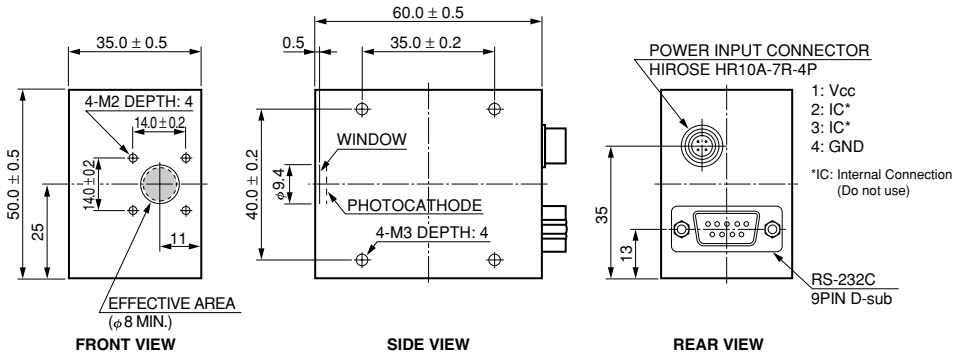
Block Diagram

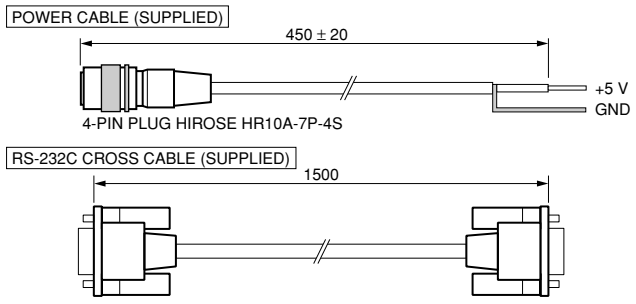


Connection Diagram



Dimensional Outlines (Unit: mm)

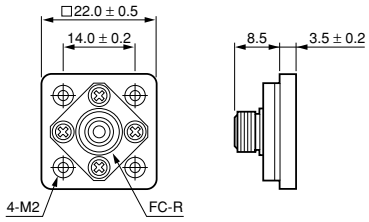




Options

(Optical Fiber Adapter) (Unit: mm)

E5776 (FC Type)



E5776-51 (SMA Type)